

## CLAIMS

1. A device, comprising:

a flexible substrate;

a plurality of contact pads on a first surface of the substrate; and

a strain relief structure, positioned between two of the plurality of contact pads.

2. The device of claim 1 wherein the strain relief structure is an aperture, penetrating through the flexible substrate from the first surface to a second surface.

3. The device of claim 2 wherein the aperture has, in plan view, a rectangular shape.

4. The device of claim 1, wherein the strain relief structure is a thinned region of the flexible substrate.

5. The device of claim 4, wherein the thinned region has, in plan view, a rectangular shape.

6. The device of claim 1, wherein the strain relief structure is centered on a line between centers of two of the plurality of contact pads.

7. The device of claim 1, further comprising a plurality of electrical traces, each of the plurality of electrical traces being in electrical contact with one of the plurality of contact pads.

8. The device of claim 7, wherein the strain relief structure is positioned such that it interrupts one of the plurality of electrical traces.

9. An electrical connector, comprising:  
a flexible substrate;  
a plurality of contact pads arranged in a regular configuration on a first surface of the substrate;

a plurality of electrical traces on the flexible substrate, each of the plurality of electrical traces being in electrical contact with a respective one of the plurality of contact pads;  
and

a plurality of apertures penetrating through the flexible substrate, the plurality of apertures arranged in a regular configuration and intercalated into the plurality of contact pads.

10. A method, comprising:

forming, on a first surface of a flexible substrate, a plurality of contact pads;

forming, on the flexible substrate, a plurality of electrical traces, each of the plurality of electrical traces being in contact with one of the plurality of contact pads; and

forming, between two of the plurality of contact pads, a strain relief structure.

11. The method of claim 10, further including breaking one of the electrical traces with the forming the strain relief structure step.

12. The method of claim 10 wherein the strain relief structure is an aperture penetrating the flexible substrate from the first surface to a second surface.

13. The method of claim 10, wherein each of the plurality of electrical traces is formed on either the first surface of the flexible substrate, a second surface of the substrate or an inner layer of the substrate.